Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An information processing system, comprising:

a first computing device configured to ~~for~~:

receive ~~receiving~~ a first information packet originating from a client;

in response to the first information packet, identify~~ing~~ a computing device that stores a data structure of a connection with the client;

~~if~~ when the identified computing device is the first computing device, perform~~ing~~ an operation of ~~an~~ a server application in response to the first information packet; and

~~if~~ when the identified computing device is a second computing device, output~~ting~~ a second information packet to the second computing device, wherein the second computing device is configured to ~~for~~ perform~~ing~~ the operation in response to the second information packet, the second information packet including a reference to the data structure, the reference being included within a single header of the second information packet.

2. (Original) The system of Claim 1 wherein the second information packet includes the first information packet.

3. (Currently Amended) The system of Claim 1 wherein ~~the operation is a first operation, and wherein~~ the reference includes an IP address of the client, a port of a second application executed by the client, an IP address of the second computing device, and a port of the first application executed by the second computing device.

4. (Original) The system of Claim 3 wherein the port of the first application is a TCP port.

5. (Original) The system of Claim 3 wherein the port of the first application is a UDP port.

6. (Currently Amended) The system of Claim 1 wherein the first computing device is ~~for receiving~~ configured to receive the first information packet through a global computer network.

7. (Currently Amended) The system of Claim 6 wherein the first computing device is ~~for~~ configured to:

~~if~~ when the identified computing device is a second computing device, output~~ting~~ the second information packet to the second computing device through a local area network.

8. (Currently Amended) The system of Claim 1 wherein the server application is a socket-based application.

9. (Currently Amended) The system of Claim 1 wherein the first computing device ~~is~~ comprises a network interface card.

10. (Currently Amended) The system of Claim 1 wherein the first information packet is addressed by the client to the first computing device, and wherein the first computing device is ~~for receiving~~ configured to receive the first information packet in response to the addressing.

11. (Currently Amended) A method performed by a first computing device of an information processing system, the method comprising:

receiving a first information packet originating from a client;

in response to the first information packet, identifying a computing device that stores a data structure of a connection with the client;

~~if~~ when the identified computing device is the first computing device, performing an operation of ~~an~~ a server application in response to the first information packet; and

~~if~~ when the identified computing device is a second computing device, outputting a second information packet to the second computing device, wherein the second computing device is configured to ~~for~~ perform~~ing~~ the operation in response to the second information packet, the second information packet including a reference to the data structure, the reference being included within a single header of the second information packet.

12. (Original) The method of Claim 11 wherein the second information packet includes the first information packet.

13. (Currently Amended) The method of Claim 11 ~~wherein the operation is a first operation, and~~ wherein the reference includes an IP address of the client, a port of a second application executed by the client, an IP address of the second computing device, and a port of the first application executed by the second computing device.

14. (Original) The method of Claim 13 wherein the port of the first application is a TCP port.

15. (Original) The method of Claim 13 wherein the port of the first application is a UDP port.

16. (Original) The method of Claim 11 wherein the method comprises:
receiving the first information packet through a global computer network.

17. (Currently Amended) The method of Claim 16 wherein the method comprises:

~~if~~ when the identified computing device is a second computing device, outputting the second information packet to the second computing device through a local area network.

18. (Currently Amended) The method of Claim 11 wherein the application is a socket-based application.

19. (Currently Amended) The method of Claim 11 wherein the first computing device ~~is~~ comprises a network interface card.

20. (Original) The method of Claim 11 wherein the first information packet is addressed by the client to the first computing device, and wherein the method comprises:

receiving the first information packet in response to the addressing.

21. (New) A server farm, comprising:

a second server; and

a first server communicatively coupled to the second server, the first server configured to respond to receipt of a first network packet by selectively:

executing a server application when the received first network packet is associated with a data structure stored in the first server; and

forwarding a second network packet to the second server when the received first network packet is associated with a data structure stored in the second server, the second network packet including an encapsulation header comprising a reference to the data structure stored in the second server.

22. (New) The server farm of claim 21 wherein the second server is configured to respond to receipt of a first network packet by selectively:

executing a server application when the received first network packet is associated with a data structure stored in the second server; and

forwarding a second network packet to the first server when the received first network packet is associated with a data structure stored in the first server, the second network packet including an encapsulation header comprising a reference to the data structure stored in the first server.

23. (New) The server farm of claim 21 wherein the second network packet includes the first network packet.

24. (New) The server farm of Claim 21 wherein the reference includes an IP address of a client, a port of a second application executed by the client, an IP address of the second server, and a port of a server application executed by the second server.

25. (New) The server farm of claim 21 wherein the first server is configured to receive network packets from a global computer network.

26. (New) The server farm of claim 25 wherein the first server is communicatively coupled to the second server through a local area network.

27. (New) The server farm of claim 21 wherein the first server comprises an intelligent network interface controller.

28. (New) The server farm of claim 21 wherein the encapsulation header is an ipOS encapsulation header and the reference to the data structure comprises sufficient information for the second server to identify a connection endpoint.

29. (New) An application server, comprising:

means for receiving a packet from a first network;

means for identifying a server in a server farm that stores a connection endpoint data structure associated with the received packet; and

means for initiating execution of a server application by the identified server configured to selectively send information over a second network.

30. (New) The application server of claim 29 wherein the means for initiating execution of the server application by the identified server is configured to selectively generate a second packet comprising an encapsulation header that includes a reference to a data structure associated with the received packet.

31. (New) The application server of claim 29 wherein the means for identifying the server that stores the connection endpoint data structure associated with the received packet comprises an intelligent network interface card.

32. (New) The application server of claim 29 wherein the means for identifying the server that stores the connection endpoint data structure associated with the received packet performs a table look-up.

33. (New) A method of operating a server farm of computer systems, comprising:

routing a first packet to a first server in the server farm through a first network;

identifying a destination server in the server farm that stores a connection data structure associated with the received packet;

when the identified destination server is the first server:

executing, by the first server, a server application associated with the received packet; and

when the identified destination server is a second server, under control of the first server:

generating a second packet; and

forwarding the second packet to the second server through a second network.

34. (New) The method of claim 33 wherein generating the second packet comprises generating an encapsulation header of the second packet that includes a reference to the stored connection data structure.

35. (New) The method of claim 33 wherein the second packet includes the first packet.

36. (New) A computer-readable memory medium containing instructions for causing a processor to:

maintain a connection data structure associated with a first network and the processor; and

respond to receipt of a network packet by:

when the received network packet is associated with a connection to the processor in the connection data structure maintained by the processor, executing a server application associated with the network packet; and

when the received network packet is associated with a second processor:

generating a second network packet; and

forwarding the second network packet to the second processor over a second network.

37. (New) The computer-readable memory medium of claim 36 wherein the connection data structure comprises, for each connection:

a client IP address field for storing an address of a client associated with the connection; and

a client port field for storing a port of a client application associated with the connection.

38. (New) The computer-readable memory medium of claim 36 wherein generating the second network packet comprises:

retrieving connection data; and

encapsulating the received network packet with a encapsulated header that includes the retrieved connection data.

39. (New) A computer-readable memory medium containing a data structure that stores a reference to a connection between a client and a destination server in a server farm, the data structure being manipulated by a processor of a receiving server in the server farm to determine from a single header a connection for use in executing a server application in response to a request of the client, the data structure comprising:

an Ethernet header;

an encapsulation header having a client address component that specifies a client IP address, a client port component that specifies a port of a client application, a server address component that specifies the destination server IP address, and a server port component that specifies a port of a server application of the destination server, whereby the encapsulation header is retrieved by the processor of the receiving server to determine the destination server; and

a payload component.

40. (New) The memory medium of claim 39 comprising a data transmission medium that transmits a generated data signal that contains the contents.

41. (New) The memory medium of claim 39 whereby, when the receiving server is the destination server, the processor uses the encapsulation header to determine the connection for use in executing the server application in response to the request of the client.

42. (New) The memory medium of claim 39 whereby the processor uses the encapsulation header to determine the connection for use in executing the server application in response to the request of the client without performing protocol stack processing.

43. (New) The memory medium of claim 39 wherein the server port component specifies at least one of a TCP port or a UDP port.

44. (New) The memory medium of claim 39 received by the processor by means of a second network that connects the destination server to a forwarding server that generated the encapsulation header.